

**Notice of Allowability**

Application No.

09/841,451

Examiner

Robert L. Nasser

Applicant(s)

MACE ET AL

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to phone interview of 2/5/2007.
2. ☒ The allowed claim(s) is/are 1, 2, 4-21, 75, 76, 80-85, 88, 101, 102 and 104-125.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f)
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>12/26/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Brick Power on February 5, 2007.

The application has been amended as follows:

In the specification:

On page 1, paragraph [0001] has been replaced with the following:

-- [0001] This application is a continuation-in-part of application Serial No. 09/092,260, filed June 5, 1998, now US Patent 6312389, which is a continuation of application Serial No. 08/680,492, filed July 15, 1996, now U.S. Patent 5,789,660. This application is also a continuation-in-part of applications Serial No. 09/128,897, filed August 4, 1998, now US Patent 6815211, and Serial No. 09/128,918, filed August 4, 1998, now US Patent 6325978.

In the claims:

Claim 75 has been rewritten as follows: -- 75. (currently amended) A respiratory monitoring system, comprising:

an airway adapter, comprising:

a housing with a flow passage extending therethrough;

a first window positioned on top of the housing for facilitating luminescence

quenching measurements of at least one substance within the flow

passage;

a luminescable material disposed in communication with the flow passage and adjacent the first window;

a pair of second windows positioned on sides of the housing on opposite sides of the flow passage for facilitating infrared measurements of at least another substance within the flow passage;

a transducer-orienting element; and

a transducer, comprising:

an attachment feature configured to secure the transducer to the airway adapter, with the transducer-orienting element of the airway adapter defining an orientation of the transducer and a plurality of features thereof with the airway adapter such that luminescence quenching measurements are made through the first window and infrared measurements are made through the second windows. --.

Claim 82 has been rewritten as follows: -- 82. (Currently amended) A respiratory monitoring system, comprising: an airway adapter, comprising:

a housing including:

a flow passage extending through at least a portion of a length thereof; and

a transducer orienting element comprising seat for receiving a complementarily configured portion of a transducer;

a transducer comprising:

a radiation source and a luminescence detector to make luminescence  
quenching measurements;

an infrared source and an infrared detector to make additional  
measurements;

a first window in the housing for facilitating luminescence quenching measurements  
of at least one substance in the flow passage, the seat of the housing orienting  
the radiation source and the luminescence detector of the transducer toward the  
first window;

a luminescable material disposed in communication with the flow passage and  
adjacent the first window;

a second window in the housing for facilitating infrared measurements of at least  
another substance in the flow passage, the seat of the housing orienting the  
infrared source and the infrared detection component of the transducer toward  
the second window; and

an attachment feature that secures the transducer to the transducer-orienting  
element of the airway adapter, with the transducer-orienting element defining an  
orientation of the transducer and a plurality of features thereof with the airway  
adapter. --.

Claim 101 has been rewritten as follows:

-- 101. (Currently amended) A respiratory monitoring system, comprising:

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an airway adapter, comprising:

a housing with a flow passage extending therethrough, the housing including:

a transducer-orienting element comprising a seat that receives a

complementarily configured portion of a transducer;

a first window in the housing for facilitating luminescence quenching

measurements of at least one substance within the flow passage a

luminescable material disposed in communication with the flow passage

and adjacent the first window;

a pair of second windows positioned in the housing on opposite sides of the flow

passage for facilitating infrared measurements of at least another substance

within the flow passage;

a transducer, comprising:

a radiation source and a luminescence detector for making luminescence

quenching measurements;

an infrared source and an infrared detector for making additional

measurements; and

an attachment feature securing the transducer to the transducer-orienting element,

with the seat of the transducer-orienting element of the airway adapter

defining an orientation of the transducer and orienting:

the radiation source and the luminescence detector toward the first

window;

the infrared source toward one second window of the pair, and  
the infrared detection component of the transducer toward another second  
window of the pair. --

Claim 102 has been rewritten as follows:

-- 102. (Currently amended) A respiratory monitoring system, comprising: an airway adapter, comprising:  
a housing including a flow passage extending through at least a portion of a length thereof;  
a first window positioned on top of the housing for facilitating luminescence quenching measurements of at least one substance in the flow passage;  
a luminescable material disposed in communication with the flow passage and adjacent the first window;  
a second window positioned on a side of the housing for facilitating infrared measurements of at least another substance in the flow passage;  
a transducer-orienting element;  
a transducer comprising:  
a first device for making luminescence quenching measurements through the first window;  
a second device for making infrared measurements through the second window;  
and an attachment feature securing the transducer to the transducer-orienting element

of the airway adapter, with the transducer-orienting element defining an orientation of the transducer and a plurality of features thereof with the airway adapter. --

These claims have been amended to positively recite the transducer having one sensor oriented through one window and a second sensor oriented through a second window or pair windows.

The following is an examiner's statement of reasons for allowance: Claims 1, 2, 4-6, 8, 10-21 define over the art of record in that none of the art shows the second detection component on a portion of the window, as claimed. Claims 75, 76, 80-85, 88, 101-102, and 122-125 define over the art of record in that none of the art has a transducer oriented such that luminescence quenching measurements are made through the first window and infrared measurements are made through the second windows. Claims 104-121 define over the art of record in that none of the art teaches the recited arrangement of pressure ports.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is 571 272-4731. The examiner can normally be reached on m-f 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert L. Nasser  
Primary Examiner  
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RLN  
February 9, 2007

